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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

PHAM, HUNG Q

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/668,949	Applicant(s) AHMED ET AL.	
	Examiner HUNG Q. PHAM	Art Unit 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 29-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

Claim rejection – 35 U.S.C. § 112

Applicant's arguments with respect to the rejection of claim 15 under 35 U.S.C. § 112, first paragraph filed 11/04/2008 have been fully considered but they are not persuasive. The provided pages and lines in the Specification of the current application do not imply the step of *converting database instructions conforming to a common database access method in the computer statements to database queries*, as asserted by the applicant. As disclosed in the Specification (Page 15 Lines 7-8), *database instructions conforming to a common database access method* is converted to *database queries*. Therefore, this limitation will be examined in light of the Specification.

Claim rejection – 35 U.S.C. § 102

Applicant's arguments with respect to the rejection under 35 U.S.C. § 102 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 15, the limitation, *converting database instructions conforming to a common database access method in the computer statements to database queries*, was not described in the specification. As disclosed in the Specification (Page 15 Lines 7-8), *database instructions conforming to a common database access method* is converted to *database queries*. Nowhere in the Specification indicates *database instructions conforming to a common database access method* is in *the computer statements*. Therefore, this limitation is examined in light of the Specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6-16 and 19-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Woolard et al. [USP 6,178,362 B1].

Regarding claim Woolard et al. teaches *a system for a building system application* (Abstract) comprising:

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a database (FIG. 4, Col. 9 Lines 28-29);

a data provider interface configured to convert database instructions conforming to a common database access method to database queries conforming to a database application programming interface (API) and to convert database responses to the common database access method (As shown in FIG. 4, the system interfaces to various data acquisition over existing data networks (Col. 8 Lines 32-35). Each client 104, 106 or 108 generates request for data from server 102 using a browser (Col. 9 Lines 38-44). As shown in FIG. 6 is an access method for receiving data updates from a particular point/device. The client application identifies the points using IPointsCollection data structure containing objects that identify the data points in the form "MachineName::PointName". For example, the user of client application A may be currently viewing the data regarding device/point B and therefore, the client application will enter a data structure of the form "A::B" indicating that the particular client application wants to receive data updates about device B. The point data is registered by command Concentrator.RegisterPoints (IPointsDataCollection**pPoints) for requesting update data corresponding to the specified device/points (Col. 12 Lines 40-67). The server 102 updates data from points/devices in the Rtdb database and determines which updated point data may be communicated (Col. 11 Lines 53-63). A data structure and subroutine Object.UpdatePoint is used to communicate update data to the client using MachineID and PtID with the Rtdb.Value (Col. 11 Line 66-Col. 12 Line 23). The Woolard et al. teaching as discussed reads on the claimed limitation *a data provider interface, e.g., the system interface, configured to convert database instructions conforming to a common database access method to database queries conforming to a database application programming interface (API), e.g., instruction Concentrator.RegisterPoints conforming to access method using MachineID and PointID of FIG. 6 is converted to request IPointsDataCollection**pPoints conforming to the subroutine Object.UpdatePoint, and to convert database responses to the common database access method, e.g., update data is converted to access method using MachineID and PointID); and*

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an application infrastructure (FIG. 4), the infrastructure comprising:

a system design converter configured to convert application definition data into computer statements that implement control logic of application definition data (As shown in FIG. 6,

RtdbRegistrar.GetStaticPointData and RtdbRegistrar.GetDynamicPointData are generated by the CONCENTRATOR according to point names in the points collection (Col. 13 Lines 4-20). As discussed above regarding the registered Machine Name, Point Name, and the generated commands of FIG. 6, *application definition data*, e.g., "MachineName::PointName", is converted to *computer statements*, e.g., RtdbRegistrar.GetStaticPointData and

RtdbRegistrar.GetDynamicPointData, that implement *control logic of application definition data*, e.g., "MachineName::PointName", by the CONCENTRATOR as *a system design converter* that configured to implement the converting);

a computer tool interface coupled to the system design converter, the computer tool interface configured to provide the system design converter with data from the database through the data provider interface (As taught by Woolard et al., The server 102 updates data from points/devices in the Rtdb database (Col. 11 Lines 53-63). As shown in FIG. 7, a CONCENTRATOR receives updated data for a point from a server (Col. 13 Lines 39-41). The Woolard et al. technique as discussed reads on the claimed limitation *a computer tool interface coupled to the system design converter*, e.g., the server coupled to the CONCENTRATOR, *the computer tool interface configured to provide the system design converter with data from the database through the data provider interface*, e.g., the server provides the CONCENTRATOR with update data from the Rtdb through the system interface);

an external program module interface coupled to the system design converter, the external program module interface configured to provide the system design converter with external program modules (As disclosed by Woolard et al., the client application coupled to the CONCENTRATOR as *an external program module interface coupled to the system design converter*, the client application provide the

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CONCENTRATOR with subroutines IPointsDataCollection**pPoints as *external program modules* for registering the request (Col. 12 Lines 57-62)); and

the system design converter being further configured to include the data obtained through the computer tool interface and the external program modules obtained through the external program module interface with the computer statements that implement the control logic of application definition data (the CONCENTRATOR is configured to include the update data, the subroutines IPointsDataCollection**pPoints with RtdbRegistrar.GetStaticPointData and RtdbRegistrar.GetDynamicPointData as a whole (Col. 12 Line 63-Col. 13 Line 20 and Col. 13 Lines 39-41) *to generate a building system application* (The purpose is to generate *building system application* (Col. 6 Line 55-Col. 7 Line 15)).

Regarding claim 15, Woolard et al. teaches a method for *supporting a building system application* (Abstract) comprising:

storing data in a database (FIG. 4, Col. 9 Lines 28-29);

converting application definition data into computer statements that implement control logic of the application definition data (Data from a variety of sources, such as utility meters in the facility is received and the energy manager may perform a variety of functions, such as tracking energy usage, analyzing energy usage... and alarm signaling (Col. 5 Lines 52-62), for example, the energy usage of each facility is monitored and an alarm will be sounded if a predetermined condition occurs (Col. 4 Lines 40-42). The Woolard et al. teaching as discussed indicates *application definition data*, e.g., utility meters, is converted to *computer statements*, e.g., computer statements of functions for sounding alarm, that implement *control logic of application definition data*, e.g., tracking, analyzing usage or alarm signaling);

converting database instructions conforming to a common database access method in the computer statements to database queries conforming to a database application programming interface (API) coupled to the

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database to enable the instructions conforming to the common database access method to access the database

(As shown in FIG. 4, the system interfaces to various data acquisition over existing data networks (Col. 8 Lines 32-35). Each client 104, 106 or 108 generates request for data from server 102 using a browser (Col. 9 Lines 38-44). As shown in FIG. 6 is an access method for receiving data updates from a particular point/device. The client application identifies the points using IPointsCollection data structure containing objects that identify the data points in the form "MachineName::PointName". For example, the user of client application A may be currently viewing the data regarding device/point B and therefore, the client application will enter a data structure of the form "A::B" indicating that the particular client application wants to receive data updates about device B. The point data is registered by command Concentrator.RegisterPoints (IPointsDataCollection**pPoints) for requesting update data corresponding to the specified device/points (Col. 12 Lines 40-67). The server 102 updates data from points/devices in the Rtdb database and determines which updated point data may be communicated (Col. 11 Lines 53-63). A data structure and subroutine Object.UpdatePoint is used to communicate update data to the client using MachineID and PtID with the Rtdb.Value (Col. 11 Line 66-Col. 12 Line 23). The Woolard et al. teaching as discussed reads on the claimed limitation *converting database instructions conforming to a common database access method to database queries conforming to a database application programming interface (API) coupled to the database*, e.g., instruction Concentrator.RegisterPoints conforming to access method using MachineID and PointID of FIG. 6 is converted to request IPointsDataCollection**pPoints conforming to the subroutine Object.UpdatePoint coupled to Rtdb, and the purpose is to *access the database*);

converting data responses from the database API to data responses conforming to the common database access method (As discussed above regarding converting, update data from subroutine Object.UpdatePoint is converted to access method using MachineID and PointID);

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obtaining external programs through an external program module interface (an alarm function is obtained from alarm management (Col. 5 Lines 30-62); and

generating building system applications by incorporating data obtained from the data responses conforming to the common database access method and the external program modules in the computer statements that implement the control logic of the application definition data (building system application, e.g., alarm application, is generated by incorporating the update data, alarm function in the computer statements for sounding alarm).

Regarding claims 2 and 16, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claims 1 and 15, Woolard et al. further discloses *the database is comprised of a plurality of databases* (Col. 9 Lines 28-31).

Regarding claim 6, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 1, Woolard et al. further discloses *web-based components configured to couple the computer statements that implement the control logic of the application definition data to another application over the Internet* (Col. 9 Lines 38-44).

Regarding claim 7, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 5, Woolard et al. further discloses *operating system communication components configured to couple the computer statements that implement the control logic of the application definition data to another application through an operating system* (Col. 9 Lines 38-44).

Regarding claim 8, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 7, Woolard et al. further discloses *the operating system communication components communicate through a Windows operating system* (Col. 9 Lines 38-44).

Regarding claim 9, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 6, Woolard et al. further discloses *the Web-based components couple the computer statements that implement the control logic of the application definition data to another application over the Internet through a customer web portal* (Col. 9 Lines 38-44).

Regarding claims 10 and 24, Haeberle teaches all of the claimed subject matter as discussed above with respect to claims 1 and 15, Haeberle further discloses *a configuration utility configured to develop a file structure representative of a building system and to associate configuration data with components identified in the file structure* (Col. 9 Lines 28-37 and Col. 11 Line 53-Col. 12 Lines 23).

Regarding claims 11 and 25, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claims 1 and 15, Woolard et al. further discloses *a data collector interface configured to couple external data sources to the database* (FIG. 4).

Regarding claims 12 and 26, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claims 11 and 25, Woolard et al. further discloses *the data collector interface is configured to convert data from a native format for an external data source to a format that is compatible with the database structure* (Col. 8 Lines 5-12).

Regarding claims 13 and 27, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claims 12 and 26, Woolard et al. further discloses *transaction services configured to generate instructions for the database API to store the converted data in the database* (Col. 8 Lines 5-12).

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Regarding claims 14 and 28, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claims 11 and 27, Woolard et al. further discloses *a scheduling service configured to activate the data collector interface to interrogate the external data sources for data to be stored in the database* (Col. 8 Lines 5-25).

Regarding claim 19, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 15, Woolard et al. further discloses the step of *coupling common components to the computer statements for implementing control logic of application definition data for communication support* (Col. 6 Lines 23-30).

Regarding claim 20, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 19, Woolard et al. further discloses the step of *coupling the computer statements for implementing control logic of application definition data to another application through a Web-based component for communication over the Internet* (Col. 7 Lines 15-25).

Regarding claim 21, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 19, Woolard et al. further discloses the step of *coupling the computer statements for implementing control logic of application definition data to another application through an operating system communication component for supporting application communication through the operating system* (Col. 6 Lines 23-30).

Regarding claim 22, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 21, Woolard et al. further discloses the step of *coupling a Window-based communication component to the computer statements for implementing control logic of application definition data* (Col. 6 Lines 23-54).

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Regarding claim 23, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claim 20, Woolard et al. further discloses *the communication through the Web- based component over the Internet is through a customer web portal* (Col. 9 Lines 38-44).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woolard et al. [USP 6,178,362 B1] in view of Gloudeman et al. [USP 6,141,595].

Regarding claims 3 and 17, Woolard et al. teaches all of the claimed subject matter as discussed above with respect to claims 2 and 15, Woolard et al. further discloses *the database*

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being comprised of a real-time database (Woolard et al., Col. 9 Lines 28-31). The missing of Woolard et al. is *a data mart*.

Gloudeman et al. teach for *a data mart* a building system (Gloudeman et al., FIG. 2, HISTORICAL DATABASE).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include the HISTORICAL DATABASE as taught by Gloudeman et al. into Woolard et al. technique in order to keep track of historical data.

Claims 4, 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woolard et al. [USP 6,178,362 B1], Gloudeman et al. [USP 6,141,595] and further in view of Rauer et al. [USP 6,161,103].

Regarding claims 4 and 18, Woolard et al. and Gloudeman et al., in combination, teach all of the claimed subject matter as discussed above with respect to claims 3 and 17, but fail to disclose *the data mart being configured in one of a snowflake and star data organization*.

Rauer et al. teach *star data organization* for the data mart (Rauer, Col. 7 Lines 5-20).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use star schema as taught by Rauer et al. for the data mart in order to organize the historical information.

Regarding claim 5, Haeberle teaches all of the claimed subject matter as discussed above with respect to claim 1, Haeberle further discloses *common components configured to support the application generated by the system design converter* (Col. 5 Lines 47-64).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES K. TRUJILLO can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

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would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG Q. PHAM/
Primary Examiner
Art Unit 2169

November 12, 2008